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66547

7590

11/05/2009

THE FARRELL LAW FIRM, LLP
290 Broadhollow Road
Suite 210E
Melville, NY 11747

EXAMINER

MILLER, BRANDON J

ART UNIT

PAPER NUMBER

2617

DATE MAILED: 11/05/2009

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/658,483	09/09/2003	Dae-Gyun Kim	678-1261	2050

TITLE OF INVENTION: METHOD FOR PROVIDING INTERACTIVE DATA SERVICE IN A MOBILE COMMUNICATION SYSTEM

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0	\$1810	02/05/2010

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. **PROSECUTION ON THE MERITS IS CLOSED.** THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN **THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE** OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. **THIS STATUTORY PERIOD CANNOT BE EXTENDED.** SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

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B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

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III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

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66547 7590 11/05/2009
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(Depositor's name)
(Signature)
(Date)

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nonprovisional	NO	\$1510	\$300	\$0	\$1810	02/05/2010

EXAMINER	ART UNIT	CLASS-SUBCLASS
MILLER, BRANDON J	2617	370-312000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

- ☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.
☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a **Customer Number is required.**

2. For printing on the patent front page, list

- (1) the names of up to 3 registered patent attorneys or agents OR, alternatively, 1 _____
 (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed. 2 _____
 3 _____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

(B) RESIDENCE: (CITY AND STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent): ☐ Individual ☐ Corporation or other private group entity ☐ Government

4a. The following fee(s) are submitted:

- ☐ Issue Fee
☐ Publication Fee (No small entity discount permitted)
☐ Advance Order - # of Copies _____

4b. Payment of Fee(s): (Please first reapply any previously paid issue fee shown above)

- ☐ A check is enclosed.
☐ Payment by credit card. Form PTO-2038 is attached.
☐ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number _____ (enclose an extra copy of this form).

5. **Change in Entity Status** (from status indicated above)

- ☐ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27. ☐ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature _____ Date _____
 Typed or printed name _____ Registration No. _____

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. **DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.**

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Determination of Patent Term Adjustment under 35 U.S.C. 154 (b) (application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 725 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 725 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Notice of Allowability

Application No.

10/658,483

Examiner

BRANDON J. MILLER

Applicant(s)

KIM ET AL.

Art Unit

2617

- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 08/05/2009.
2. ☒ The allowed claim(s) is/are 1-18, 20-24 and 28.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some* c) ☐ None of the:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

/Kent Chang/
Supervisory Patent Examiner, Art Unit 2617

DETAILED ACTION

Allowable Subject Matter

- I. The following is an examiner's statement of reasons for allowance:

Claim 1 recites a method for providing an interactive broadcast/multicast service for high-speed data transmission between a base station and at least one mobile station in a mobile communication system including the at least one mobile station, the base station communicating with the at least one mobile station, and a server connected to the base station, the server providing data to the at least one mobile station with steps as defined in the specification (pages 4-21) including transmitting, by the base station, high-speed data according to the interactive broadcast/multicast service transmitted from the server, to the at least one mobile station over a forward common channel all mobile stations can receive in common during the interactive broadcast/multicast service; and transmitting reverse transmission data according to the interactive broadcast/multicast service over a reverse dedicated channel, by a serviced mobile station, receiving the interactive broadcast/multicast service through the forward common channel during the interactive broadcast/multicast service, wherein the base station assigns a common power control channel (CPCCH) to the at least one mobile station to control power of the reverse dedicated channel.

The prior art teaches a method for providing broadcast/multicast service for high-speed data transmission between a base station and at least one mobile station in a mobile communication system including: the base station communicating with the at least one mobile station, and a server connected to the base station, the server providing data to the at least one mobile station including transmitting, by the base station, high-speed data according to the

broadcast/multicast service transmitted from the server, to the at least one mobile station over a forward common channel all mobile stations can receive in common during the broadcast/multicast service; and transmitting reverse transmission data.

However, applicant's independent claim 1 comprises a particular combination of steps, as recited above, that allows for providing interactive broadcast/multicast service for high-speed data transmission including transmitting, by the base station, high-speed data according to the interactive broadcast/multicast service transmitted from the server and transmitting reverse transmission data according to the interactive broadcast/multicast service over a reverse dedicated channel, by a serviced mobile station, receiving the interactive broadcast/multicast service through the forward common channel during the interactive broadcast/multicast service, wherein the base station assigns a common power control channel (CPCCH) to the at least one mobile station to control power of the reverse dedicated channel.

This is neither taught nor suggested by the prior art.

Claims 2-8 are allowable based on their dependence on independent claim 1.

Claim 9 recites a method for providing an interactive broadcast/multicast service for high-speed data transmission between a base station and at least one mobile station in a mobile communication system including a plurality of mobile stations, the base station communicating with the plurality of mobile stations, and a server connected to the base station, the server providing data to the plurality of mobile stations with steps as defined in the specification (pages 4-21) including upon receiving an interactive broadcast/multicast service request from at least one of the plurality of mobile stations, setting up, by the base station, a

connection to the at least one of the plurality of mobile stations and opening a session for the requested interactive broadcast/multicast service between the base station and the server; transmitting, by the base station, high-speed data according to the interactive broadcast/multicast service transmitted from the server, to the at least one of the plurality of mobile stations over a forward dedicated channel during the interactive broadcast/multicast service; comparing, by the server, a number of the at least one of the plurality of mobile stations requesting the interactive broadcast/multicast service with a predetermined threshold; and if the number of the at least one of the plurality of mobile stations requesting the interactive broadcast/multicast service is larger than the predetermined threshold, simultaneously transmitting, by the base station, high-speed data to be provided from the server to the at least one of the plurality of mobile stations, to at least one of the plurality of mobile stations over a forward common channel during the interactive broadcast/multicast service, and transmitting reverse transmission data according to the interactive broadcast/multicast service over respective reverse dedicated channels by the at least one of the plurality mobile stations receiving the interactive broadcast/multicast service through the forward common channel during the interactive broadcast/multicast service, wherein the base station assigns a common power control channel (CPCCH) to the at least one mobile station to control power of the reverse dedicated channel.

The prior art teaches a method for providing broadcast/multicast service for high-speed data transmission between a base station and at least one mobile station in a mobile communication system including: the base station communicating with the at least one mobile station, and a server connected to the base station, the server providing data to the at least one mobile station including transmitting, by the base station, high-speed data according to the

broadcast/multicast service transmitted from the server, to the at least one mobile station over a forward common channel all mobile stations can receive in common during the broadcast/multicast service; and transmitting reverse transmission data.

However, applicant's independent claim 9 comprises a particular combination of steps, as recited above, that allows for providing interactive broadcast/multicast service for high-speed data transmission including transmitting, by the base station, high-speed data according to the interactive broadcast/multicast service transmitted from the server; receiving an interactive broadcast/multicast service request from at least one of the plurality of mobile stations, setting up, by the base station, a connection to the at least one of the plurality of mobile stations and opening a session for the requested interactive broadcast/multicast service between the base station and the server; transmitting, by the base station, high-speed data according to the interactive broadcast/multicast service transmitted from the server, to the at least one of the plurality of mobile stations over a forward dedicated channel during the interactive broadcast/multicast service; comparing, by the server, a number of the at least one of the plurality of mobile stations requesting the interactive broadcast/multicast service with a predetermined threshold; and if the number of the at least one of the plurality of mobile stations requesting the interactive broadcast/multicast service is larger than the predetermined threshold, simultaneously transmitting, by the base station, high-speed data to be provided from the server to the at least one of the plurality of mobile stations, to at least one of the plurality of mobile stations over a forward common channel during the interactive broadcast/multicast service, and transmitting reverse transmission data according to the interactive broadcast/multicast service over respective reverse dedicated channels by the at least one of the plurality mobile stations

receiving the interactive broadcast/multicast service through the forward common channel during the interactive broadcast/multicast service, wherein the base station assigns a common power control channel (CPCCH) to the at least one mobile station to control power of the reverse dedicated channel.

This is neither taught nor suggested by the prior art.

Claims 10-15 are allowable based on their dependence on independent claim 9.

Claim 16 recites a method for releasing an interactive broadcast/multicast service for high-speed data transmission between a base station and a mobile station in a mobile communication system including a plurality of mobile stations, the base station communicating with the plurality of mobile stations, and a server connected to the base station with steps as defined in the specification (pages 4-21) including transmitting, by the base station, high-speed data according to the interactive broadcast/multicast service to be transmitted from the server to the plurality of mobile stations, to at least one of the plurality of mobile stations over a forward common channel, and transmitting reverse transmission data according to the interactive broadcast/multicast service over respective reverse dedicated channels by at least one of the plurality of mobile stations receiving the interactive broadcast/multicast service through the forward common channel during the interactive broadcast/multicast service; comparing, by the server, a number of the at least one of the plurality of mobile stations receiving the interactive broadcast/multicast service with a predetermined threshold, while providing the high-speed data; if the number of the at least one of the plurality of mobile stations receiving the high-speed data provided over the forward common channel is smaller than the threshold, transmitting by the

base station high-speed data to be provided from the server to at least one of the plurality of mobile stations requesting the interactive broadcast/multicast service over a forward dedicated channel during the interactive broadcast/multicast service; and releasing, by the base station, a session opened for the interactive broadcast/multicast service between the base station and the server, if all of the at least one of the plurality of mobile stations receiving the service finish the interactive broadcast/multicast service reception, wherein the base station assigns a common power control channel (CPCCH) to the at least one mobile station to control power of the reverse dedicated channel.

The prior art teaches a method for providing broadcast/multicast service for high-speed data transmission between a base station and at least one mobile station in a mobile communication system including the base station communicating with the at least one mobile station, and a server connected to the base station, the server providing data to the at least one mobile station including: transmitting, by the base station, high-speed data according to the broadcast/multicast service transmitted from the server, to the at least one mobile station over a forward common channel all mobile stations can receive in common during the broadcast/multicast service; and transmitting reverse transmission data.

However, applicant's independent claim 16 comprises a particular combination of steps, as recited above, that allows for providing interactive broadcast/multicast service for high-speed data transmission including providing interactive broadcast/multicast service for high-speed data transmission including transmitting, by the base station, high-speed data according to the interactive broadcast/multicast service to be transmitted from the server to the plurality of mobile stations, to at least one of the plurality of mobile stations over a forward common channel, and

transmitting reverse transmission data according to the interactive broadcast/multicast service over respective reverse dedicated channels by at least one of the plurality of mobile stations receiving the interactive broadcast/multicast service through the forward common channel during the interactive broadcast/multicast service; comparing, by the server, a number of the at least one of the plurality of mobile stations receiving the interactive broadcast/multicast service with a predetermined threshold, while providing the high-speed data; if the number of the at least one of the plurality of mobile stations receiving the high-speed data provided over the forward common channel is smaller than the threshold, transmitting by the base station high-speed data to be provided from the server to at least one of the plurality of mobile stations requesting the interactive broadcast/multicast service over a forward dedicated channel during the interactive broadcast/multicast service; and releasing, by the base station, a session opened for the interactive broadcast/multicast service between the base station and the server, if all of the at least one of the plurality of mobile stations receiving the service finish the interactive broadcast/multicast service reception, wherein the base station assigns a common power control channel (CPCCH) to the at least one mobile station to control power of the reverse dedicated channel.

This is neither taught nor suggested by the prior art.

Claim 17 is allowable based on its dependence on independent claim 16.

Claim 18 recites a method for providing an interactive broadcast/multicast service for high-speed data transmission between a base station and a plurality of mobile stations in a mobile communication system including the plurality of mobile stations, the base station

communicating with the plurality of mobile stations, and a server connected to the base station with steps as defined in the specification (pages 4-21) including upon receiving an interactive broadcast/multicast service request from a first mobile station, setting up, by the base station, a connection to the first mobile station, and shifting a state with the first mobile station to a traffic state; opening, by the base station, a session for the requested interactive broadcast/multicast service between the base station and the server, registering the first mobile station in the requested interactive broadcast/multicast service, and shifting the state with the first mobile station to a dormant state; upon receiving an interactive broadcast/multicast service request from a second mobile station in the dormant state, paging, by the server, the first mobile station via the base station; assigning, by the base station, a forward common channel and a reverse dedicated channel between the base station and the first mobile station; and transmitting, by the base station, high-speed data according to the interactive broadcast/multicast service transmitted from the server, to the first mobile station over the assigned forward common channel, and transmitting, by the first mobile station, reverse transmission data according to the interactive broadcast/multicast service to be transmitted in a reverse direction over the assigned reverse dedicated channel during the interactive broadcast/multicast service, wherein the base station assigns a common power control channel (CPCCH) to the at least one mobile station to control Power of the reverse dedicated channel.

The prior art teaches a method for providing broadcast/multicast service for high-speed data transmission between a base station and at least one mobile station in a mobile communication system including the base station communicating with the at least one

mobile station, and a server connected to the base station, the server providing data to the at least one mobile station; and transmitting reverse transmission data.

However, applicant's independent claim 18 comprises a particular combination of steps, as recited above, that allows for receiving an interactive broadcast/multicast service request from a first mobile station, setting up, by the base station, a connection to the first mobile station, and shifting a state with the first mobile station to a traffic state; opening, by the base station, a session for the requested interactive broadcast/multicast service between the base station and the server, registering the first mobile station in the requested interactive broadcast/multicast service, and shifting the state with the first mobile station to a dormant state; upon receiving an interactive broadcast/multicast service request from a second mobile station in the dormant state, paging, by the server, the first mobile station via the base station; assigning, by the base station, a forward common channel and a reverse dedicated channel between the base station and the first mobile station; and transmitting, by the base station, high-speed data according to the interactive broadcast/multicast service transmitted from the server, to the first mobile station over the assigned forward common channel, and transmitting, by the first mobile station, reverse transmission data according to the interactive broadcast/multicast service to be transmitted in a reverse direction over the assigned reverse dedicated channel during the interactive broadcast/multicast service, wherein the base station assigns a common power control channel (CPCCH) to the at least one mobile station to control Power of the reverse dedicated channel.

This is neither taught nor suggested by the prior art.

Claim 20 recites a method for providing an interactive broadcast/multicast service for high-speed data transmission between a base station and a mobile station in a mobile communication system including the mobile station, the base station communicating with the mobile station, and a server connected to the base station with steps as defined in the specification (pages 4-21) including setting up, by the base station, a connection to the mobile station and shifting a state with the mobile station to a traffic state if a data transmission request corresponding to the interactive broadcast/multicast service to the server is received from the mobile station receiving high-speed data provided from the server, from the base station over a forward common channel; opening, by the base station, a session for the requested data transmission between the base station and the server; assigning, by the base station, a reverse dedicated channel between the base station and the mobile station; and transmitting, by the mobile station, high-speed data according to the interactive broadcast/multicast service to be transmitted in a reverse direction, over the assigned reverse dedicated channel during the interactive broadcast/multicast service, wherein the base station assigns a common power control channel (CPCCH) to the at least one mobile station to control power of the reverse dedicated channel.

The prior art teaches a method for providing broadcast/multicast service for high-speed data transmission between a base station and at least one mobile station in a mobile communication system including the base station communicating with the at least one mobile station, and a server connected to the base station, the server providing data to the at least one mobile station; and transmitting reverse transmission data.

However, applicant's independent claim 20 comprises a particular combination of steps, as recited above, that allows for setting up, by the base station, a connection to the mobile station and shifting a state with the mobile station to a traffic state if a data transmission request corresponding to the interactive broadcast/multicast service to the server is received from the mobile station receiving high-speed data provided from the server, from the base station over a forward common channel; opening, by the base station, a session for the requested data transmission between the base station and the server; assigning, by the base station, a reverse dedicated channel between the base station and the mobile station; and transmitting, by the mobile station, high-speed data according to the interactive broadcast/multicast service to be transmitted in a reverse direction, over the assigned reverse dedicated channel during the interactive broadcast/multicast service, wherein the base station assigns a common power control channel (CPCCH) to the at least one mobile station to control power of the reverse dedicated channel.

This is neither taught nor suggested by the prior art.

Claim 21 is allowable based on its dependence on independent claim 20.

Claim 22 recites a method for providing an interactive broadcast/multicast service for high-speed data transmission between a base station and a mobile station in a mobile communication system including the mobile station, the base station communicating with the mobile station, and a server connected to the base station with steps as defined in the specification (pages 4-21) including receiving, by the mobile station, radio resource information for the interactive broadcast/multicast service from the base station; sending, by the mobile

station, an interactive broadcast/multicast service request to the base station using the received radio resource information; setting up, by the base station, a connection to the mobile station, and shifting a state with the mobile station to a traffic state; opening, by the base station, a session for the requested interactive broadcast/multicast service between the base station and the server; assigning, by the base station, a forward common channel and a reverse dedicated channel between the base station and the mobile station; transmitting, by the base station, high-speed data according to the interactive broadcast/multicast service to be provided from the server to the mobile station, to the mobile station over the assigned forward common channel during the interactive broadcast/multicast service; and transmitting, by the mobile station, reverse transmission data according to the interactive broadcast/multicast service to be provided from the mobile station to the server, to the base station over the assigned reverse dedicated channel during the interactive broadcast/multicast service, wherein the base station assigns a common power control channel (CPCCH) to the at least one mobile station to control power of the reverse dedicated channel.

The prior art teaches a method for providing broadcast/multicast service for high-speed data transmission between a base station and at least one mobile station in a mobile communication system including the base station communicating with the at least one mobile station, and a server connected to the base station, the server providing data to the at least one mobile station; and transmitting reverse transmission data.

However, applicant's independent claim 22 comprises a particular combination of steps, as recited above, that allows for receiving, by the mobile station, radio resource information for the interactive broadcast/multicast service from the base station; sending, by the mobile station,

an interactive broadcast/multicast service request to the base station using the received radio resource information; setting up, by the base station, a connection to the mobile station, and shifting a state with the mobile station to a traffic state; opening, by the base station, a session for the requested interactive broadcast/multicast service between the base station and the server; assigning, by the base station, a forward common channel and a reverse dedicated channel between the base station and the mobile station; transmitting, by the base station, high-speed data according to the interactive broadcast/multicast service to be provided from the server to the mobile station, to the mobile station over the assigned forward common channel during the interactive broadcast/multicast service; and transmitting, by the mobile station, reverse transmission data according to the interactive broadcast/multicast service to be provided from the mobile station to the server, to the base station over the assigned reverse dedicated channel during the interactive broadcast/multicast service, wherein the base station assigns a common power control channel (CPCCH) to the at least one mobile station to control power of the reverse dedicated channel.

This is neither taught nor suggested by the prior art.

Claims 23-24 is allowable based on their dependence on independent claims 22.

Claim 28 recites a method for providing an interactive broadcast/multicast service for high-speed data transmission between a base station and at least one mobile station in a mobile communication system including the at least one mobile station, the base station communicating with the at least one mobile station, and a server connected to the base station, the server providing data to the at least one mobile station with steps as defined in the

specification (pages 4-21) including transmitting, by the base station, high-speed data according to the interactive broadcast/multicast service transmitted from the server that includes at least one segment indicator indicating a segment size of frames used for the high-speed data, to the at least one mobile station over a forward common channel all mobile stations can receive in common during the interactive broadcast/multicast service; and transmitting reverse transmission data according to the interactive broadcast/multicast service over a reverse dedicated channel, by a serviced mobile station, receiving the interactive broadcast/multicast service through the forward common channel during the interactive broadcast/multicast service, wherein the base station assigns a common power control channel (CPCCH) to the at least one mobile station to control power of the reverse dedicated channel.

The prior art teaches a method for providing broadcast/multicast service for high-speed data transmission between a base station and at least one mobile station in a mobile communication system including: the base station communicating with the at least one mobile station, and a server connected to the base station, the server providing data to the at least one mobile station including transmitting, by the base station, high-speed data according to the broadcast/multicast service transmitted from the server, to the at least one mobile station over a forward common channel all mobile stations can receive in common during the broadcast/multicast service; and transmitting reverse transmission data.

However, applicant's independent claim 28 comprises a particular combination of steps, as recited above, that allows for providing interactive broadcast/multicast service for high-speed data transmission including transmitting, by the base station, high-speed data according to the interactive broadcast/multicast service transmitted from the server and transmitting, by the base

station, high-speed data according to the interactive broadcast/multicast service transmitted from the server that includes at least one segment indicator indicating a segment size of frames used for the high-speed data, to the at least one mobile station over a forward common channel all mobile stations can receive in common during the interactive broadcast/multicast service; and transmitting reverse transmission data according to the interactive broadcast/multicast service over a reverse dedicated channel, by a serviced mobile station, receiving the interactive broadcast/multicast service through the forward common channel during the interactive broadcast/multicast service, wherein the base station assigns a common power control channel (CPCCH) to the at least one mobile station to control power of the reverse dedicated channel.

This is neither taught nor suggested by the prior art.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

II. The prior art made of record is considered pertinent to applicant's disclosure.

Brachman et al. Patent No.: US 6,704,576 B1 discloses a method and system for communicating multimedia content in a unicast, multicast, simulcast or broadcast environment.

Hsu et al. Pub. No.: US 2003/0145064 A1 discloses a method and apparatus for negotiation of transmission parameters for broadcast/multicast services.

Leung et al. Patent No.: US 7,349,425 B2 discloses a method and apparatus for overhead messaging in a wireless communication system.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BRANDON J. MILLER whose telephone number is (571)272-7869. The examiner can normally be reached on Mon.-Fri. 8:00 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, George Eng can be reached on 571-272-7495. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Brandon J Miller/
Examiner, Art Unit 2617

October 28, 2009

/Kent Chang/
Supervisory Patent Examiner, Art Unit 2617